DISSERTATION

ON THE

MALIGNANT, ULCEROUS SORE-THROAT.

BY

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LONDON:

Printed for J. HINTON, at the *King's-Arms* in *Newgate-Street*. 1757.

[Price One Shilling.]

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EDINBURGH,

Proſperity!

GENTLEMEN!



Beg Leave to inſcribe to you this ſmall Diſſertation on the Malignant, Ulcerous Sore-Throat, *in Teſtimony of my great Reſpect and Gratitude*

tude for the Honour you have done me in electing me a Fellow of your very learned Society.---- I ſhall endeavour, to the utmoſt of my Power, to approve myſelf worthy of your Choice.

I am, GENTLEMEN,

your highly obliged,

and moſt obedient,

humble Servant,

John Huxham.

A

DISSERTATION

ON THE

Malignant Ulcerous Sore-Throat.

SINCE the Publication of my *Eſſay on Fevers*, I have had frequent Opportunities of making Obſervations on a Diſeaſe of the putrid, malignant Kind, which abundantly confirm my Notions of the Cauſe and Cure of malignant peſtilential Fevers.——I mean what is called the *Angina maligna*, or *Ulcerous Sore-Throat*, which hath appeared up and down this Kingdom for ſeveral Years,

in ſome Places very common and exceedingly fatal, eſpecially to Children.

The firſt accurate Account we had of this Diſtemper in *England* was from the very ingenious Dr. *Fothergill*, in 1748.—But ſeveral of the *Spaniſh* and *Italian Phyſicians* have deſcribed exactly ſuch a Kind of Diſeaſe, as raging with great Violence and Mortality in *Spain*, and ſeveral Parts of *Italy*, in the Begining of the laſt Century.——Perhaps the *Syrian* and *Ægyptian Ulcers* mentioned by *Aretæus Cappadox*, and the *peſtilent ulcerated Tonſils*, we read of in *Ætius Amidenus*, were of this Nature;—and truly ſome of the Scarlet Fevers, mentioned by *Morton*, ſeem not much unlike it.

It is not above ſix, or ſeven Years ſince I met with it in this Town and Neighbourhood, though it raged with great Fatality in and about *Loſtwithiel*,

withiel, *St. Auſtle*, *Fowye*, and *Liſkeard*, a Year or two before. —— From the latter Part of the Year 1751 to *May* 1753 it was very common in this Town, and Places adjacent, eſpecially in 1752, and not only carried off Children, but ſeveral Adults.

As a faithful and accurate Hiſtory of Diſeaſes, their various Symptoms, and Methods of Cure, is the moſt effectual Way of promoting the Art of Healing, Phyſicians ſhould deſcribe with the utmoſt Care the Diſeaſes they would treat of, and the good and bad Effects of any Method, or Medicines, they have uſed to remove them.——But in a more particular Manner is this neceſſary when any new, or uncommon Diſtemper occurs, of which the peculiar pathognomonic and diagnoſtic Signs ſhould be carefully laid down, and a particular Account given of what

Evacuations, Regimen, and Medicines were uſeful, or hurtful, in it. —— And this Method I ſhall endeavour to purſue with the utmoſt Attention in the following Account.

A vaſt Quantity of Rain fell during the Year 1751, the Summer particularly was, in general, uncommonly wet, cold and frequently ſtormy. —— At the Begining of *June* however we had exceeding hot Weather, and ſome very ſultry Days alſo in *July* and *Auguſt*; the Atmoſphere was almoſt always thick and moiſt, but the Barometer low commonly. —— The Fruits of the Earth were crude, watery, and inſipid; the Harveſt was exceſſively bad, and the Grain of all Kinds ſuffered greatly. —— Notwithſtanding this we had but little Sickneſs, at leaſt no very epidemical Diſtemper: But the Small-pox (brought in by *Conway*'s *Regiment*, in *May*) — ſpread in this

Town conſiderably in *July* and *Auguſt*; and there were then ſeveral putrid and miliary Fevers, in the ſouthern Parts of this County. —— Indeed, though we were not here very ſickly, yet hypochondriacal and hyſteric Diſorders greatly prevailed, and there was a Kind of univerſal Inactivity and Lowneſs of Spirits every where.

The Small-pox became much more common in the Autumn, and of a much worſe Kind than they were at their firſt Appearance, and about the Mid-winter were very epidemic and fatal.—In the mean Time there were Abundance of Catarrhs, mucous and inflammatory Sore-Throats, ſome Pleuriſies and Peripneumonies; and commonly Eruptions of the eryſipelatous, or puſtular Kind, attended all theſe Diſorders.

The Weather ſtill continued wet, and often very boiſterous, the Wind various. —— *December* was a cold

Month, but wet from the 15th to the 25th.—The ſame Diſeaſes continued, and about the End of the Year were ſeveral malignant ulcerous Sore-Throats up and down.

The Year 1752 began cold, wet, and frequently ſtormy, the Wind moſt commonly from the Eaſt, verging however conſiderably now to the North, now to the South; the Barometer often very low, though at the Begining of *January* very high, with ſharp Froſt. — The Small-pox continued epidemic, often crude, cryſtalline, and undigeſted to the very End, ſometimes very confluent, ſmall and ſeſſile; ſome black and bloody, and now and then attended with Petechiæ.—Pleuroperipneumonies, and Rheumatiſms, were not uncommon; catarrhal and mucous Squinzies with much Cough, and a large thin Spitting, were very rife; and now alſo there were ſeveral ma-

lignant dangerous Sore-Throats with no ſmall Degree of Fever.

Both at the Beginiſig, and End, of *February*, the Mercury was high, and the Air clear, dry, and froſty; but, from the 8th to the 21ſt, there was much Rain with the Wind generally at South. —— Many Small-pox were in the Town, though few in the Neighbourhood; ſeveral Pleuriſies, Peripneumonies, and Rheumatiſms, a vaſt Quantity of catarrhal, mucous Sore-Throats, and many inflammatory Squinzies; and ſtill ſome of the malignant Kind.

The Weather was pretty cold and dry in *March*, eſpecially at the Begining, and latter End; and the Barometer high, at no Time very low. ——The Small-pox grew more mild, and much leſs frequent; —the other Diſeaſes alſo leſs common, but more inflammatory; no malignant Sore-Throats: Many were ſeverely tor-

mented with Coughs, and obſtinate aſthmatic Diſorders. — The Blood now drawn was commonly more denſe and viſcid than it had been for many Months.

The north-eaſt Wind prevailed at the Begining of *April*, and rendered the Air dry, clear, and pretty cold; the Baroſcope high: A ſhowery Seaſon ſucceeded for four, or five, Days, and then the dry north-eaſt Wind return'd, from the 21ſt it was W. N. W. — The Small-pox ſtill up and down, ſome of a bad Sort: Many Pleuriſies, and Peripneumonies, Rheumatiſm, Jaundice, and Dropſy frequent; ſevere Coughs every where: A vaſt many are troubled with *Worms*, even Adults, as well as Children.

Though we had ſome agreeable Weather in *May*, the Summer was wet, cold, and uncomfortable; the Atmoſphere thick and foggy, the Barometer ſeldom high, the S. W. and

and N. W. Winds were much the moſt frequent. The Fruits of the Earth did not ripen well, but were watery and inſipid; a bad Harveſt, bad Grain.—A great Dejection of Spirits, Liſtleſſneſs, and Laſſitude were univerſally complained of.—— The Small-pox became much more numerous in *June*, and were epidemic all the Summer, and rather of a worſe Kind than in the Spring, not only here, but every-where in the Neighbourhood; they were frequently confluent, very ſmall, and ſometimes black, attended with Hæmorrhages of the Noſe, eſpecially in Children; but the Petechiæ were much leſs common than I expected; ſometimes they were very crude, cryſtalline, and indigeſted, running into large Bliſters, eroding the Skin greatly.—Rheumatiſms, Gout, and Coughs were in vaſtly greater Plenty than uſual at this Time of the Year.

Now alſo exactly ſuch a Kind of

Fever,

Fever, as I called, in my *1ſt Volume of Epidemics*, *Febris anginoſa*, raged up and down with great Violence, attended with ſcarlet or puſtular Eruptions, and ſucceeded with great Itching and Deſquamation of the Cuticle. In this the Pulſe was commonly hard, quick, and ſmall, the Breathing hot, and laborious, with great Oppreſſion on the Præcordia, the Urine ſometimes crude and pale, ſometimes high-coloured and turbid, but without Sediment; a Delirium generally came on ſoon. — The Sick commonly bore Bleeding at the Begining with Advantage, and the Blood was often ſizy, though much leſs ſo in general than in Squinzies of the truly inflammatory Kind; they very ſeldom however admitted of large Bleeding, ſcarce indeed of a ſecond.

In all Sorts of Fevers there was a ſurprizing Diſpoſition to Eruptions of

of ſome Kind or other, to Sweats, Soreneſs of Throat and Apthæ.—— The Small-pox were more fatal in *Auguſt*, and ſometimes attended with a very dangerous Ulceration in the Throat, and Difficulty of Swallowing.—Indeed the malignant ulcerous Sore-Throat was now alſo frequent, probably ſometimes complicated with the Small-pox.

The Autumn was much more fair, and comfortable, than the Summer, particularly the Month of *October* was for the greater Part beautiful and ſerene, the Mercury high; however, the Atmoſphere was generally thick, and ſometimes very moiſt, the Wind commonly from the eaſtern Quarters; *November* was leſs wet, and ſtormy than uſual, and in general warm; the Barometer pretty high, but the Air thick and humid.——At the Begining of *December* the Quick-ſilver was exceeding high, the Air cold

cold and dry, Wind E. N. E; but from the 6th to the 26th very wet and foggy, ſometimes boiſterous, and the Barometer ſunk very much; towards the End the Eaſterly Wind returned, raiſed the Mercury, and reſtored fine, cold Weather.

During this Period the Small-pox continued epidemic every where, and, though ſomewhat more mild in *September* and *October*, yet here and there they were very confluent, attended with Spots and Hæmorrhages of the Noſe.—In *December* they were often crude, numerous, and undigeſted to the laſt, running into very large Veſications, deeply eroding the ſubjacent Parts: the Cruſts of the black confluent many Times remained for at leaſt thirty Days after the Eruption.——The *anginoſe Fever* alſo ſtill continued—and we had ſeveral of the *malignant Sore-Throats* in *September*, many more in *October*,

in

in *November* and *December* they were exceeding common in this *Town*, at the *Dock*, and all around us, and carried off a great many Adults, as well as Children. —— During this Time likewiſe catarrhal, mucous Sore-Throats were innumerable, but with little Severity, or Danger.—In *October* particularly, after a few Days of foggy, ſtormy, rainy Weather, we had from the 12th to the 16th very cold Mornings, and immenſe hoar Froſts with ſome Ice, in which Time Hundreds of People were at once ſeized with a Cough, Sore-Throat, and a great Defluxion from the Noſe, Eyes, and Mouth, attended with a ſlight Fever, and more, or leſs, of a *Raſh*, ſeveral with great *Fluxes* of the *Belly*.—Coughs, Catarrhs, Rheumatiſms and Fluxes were exceſſively common in *November* and *December*, eſpecially catarrhal Coughs, with which almoſt every one was in ſome Degree trou-

troubled; and yet there were very few Peripneumonies, or Pleuriſies; however, Abundance fell into a pulmonary Phthiſis, and many died tabid.

For many Months paſt we had ſcarce the ſlighteſt Fever but it was attended with a Sore-Throat, Apthæ, and ſome Kind of cuticular Eruption, and that too even in pleuritic and peripneumonic Diſorders — ſo greatly did the Conſtitution of the Air, *&c.* ſeem diſpoſed to produce Eruptions in all Sorts of feveriſh Indiſpoſitions. —The Blood drawn from the Diſeaſed, during all this Time, hath been very rarely viſcid, but generally florid ſeemingly, eſpecially at the very Begining of the Malady, and of a very looſe Texture.

Thus ended the Year 1752.— The following Part of the Winter, and ſucceeding Spring was very cold and wet; the cold Weather continued

nued till the Middle of *May*, and made a very backward Spring. Then came on very fine hot Weather, and we had the warmeſt and moſt beautiful Summer, that hath been known for many Years. —— The Small-pox, and both catarrhal and malignant Squinzies grew leſs frequent, and leſs fatal, from *January* to *May*, when both intirely ceaſed.—As the Spring advanced, we had ſeveral Pleuriſies, Peripneumonies, and a vaſt Number of catarrhal Diſorders: — The Blood now drawn was much more denſe and viſcid in general than had been obſerved for many Months before.

I have given this ſhort Account of the Conſtitution of the Air and Diſeaſes, during this Period, in which Sore-Throats of one Kind, or another, were much more frequent than I ever before remember, and with which alſo cuticular Eruptions of various Sorts were exceedingly common,

mon, and this too even in the ſlighteſt Fevers that happened. —— And this I have particularly done, that perhaps from it ſome rational Conjectures of that Cauſe and Nature of ſuch Diſorders may be made.—Did the long cold and wet Seaſons occaſion them, by hindering a due and regular Perſpiration? The ſuppreſſed Perſpirabile grows very acrid, and productive at length of a Variety of Diſeaſes, particularly ſuch as paſs under the general Name of Scorbutic, as well as more immediately of Catarrhs, Squinzies, Peripneumonies, Fluxes, Colics, &c. which are notoriouſly the Effects of ſuppreſſed Perſpiration. —But my preſent Deſign is not to enter into Diſquiſitions of this Nature.——I proceed therefore to give the moſt exact Account, I poſſibly can, of the *Malignant, Ulcerous Sore-Throat*, as it raged here during the Period above deſcribed,

bed, eſpecially in 1752.—To which I ſhall ſubjoin the Method of Cure I found moſt ſucceſsful.

The *Attack* of this Diſeaſe was very different in different Perſons. ——Sometimes a Rigor, with ſome Fulneſs and Soreneſs of the Throat, and painful Stiffneſs of the Neck, were the very firſt Symptoms complained of. — Sometimes alternate Chills and Heats, with ſome Degree of Head-ach, Giddineſs, or Drowſineſs, uſhered in the Diſtemper. — It ſeized others with much more feveriſh Symptoms, great Pain of the Head, Back, and Limbs, a vaſt Oppreſſion on the Præcordia, and continual Sighing.—Some grown Perſons, on the contrary, moved about for a Day, or two, neither ſick or well, as it were, but under Uneaſineſs and Anxiety till they were obliged to lie for it. Thus various was the Diſeaſe at the *Onſet*. But

it commonly began with Chills and Heats, Load and Pain of the Head, Soreneſs of Throat and Hoarſneſs, ſome Cough, Sickneſs at Stomach, frequent Vomiting and Purging, in Children eſpecially, which were ſometimes very ſevere; though a contrary State was more common to the Adult. — There was in all a very great Dejection of Spirits, very ſudden Weakneſs, great Heavineſs on the Breaſt, and Faintneſs, from the very Begining. — The Pulſe in general was quick, ſmall and fluttering, though ſometimes heavy and undoſe. — The Urine commonly pale, thin and crude, however, in many grown Perſons in ſmall Quantities, and high-coloured, or like turbid Whey. — The Eyes were heavy, reddiſh, and as it were weeping, — the Countenance very often full, fluſhed and bloated, though ſometimes pale and ſunk.

How ſlight ſoever the Diſorder might appear in the Day-time, at Night the Symptoms became greatly aggravated, and the feveriſh Habit very much increaſed, nay, ſometimes a Delirium came on the very firſt Night; and this Exacerbation conſtantly returned in the Evening thro' the whole Courſe of the Diſeaſe. — Indeed, when it was conſiderably on the Decline, I have been often pretty much ſurprized to find my Patient had paſſed the whole Night in a Phrenzy, whom I had left tolerably cool and ſedate in the Day.

Some few Hours after the Seizure, and ſometimes cotemporary with it, a Swelling and Soreneſs of the Throat was perceived, and the Tonſils became very tumid and inflamed, and many times the paroted and maxillary Glands ſwelled very much, and very ſuddenly, even at the very Begining; ſometimes ſo

much as even to threaten Strangulation. The Fauces alſo very ſoon appeared of a high florid Red, or rather of a bright Crimſon Colour, very ſhining and gloſſy; and moſt commonly on the *Uvula*, *Tonſils*, *Velum Palatinum*, and back Part of the *Pharynx*, ſeveral whitiſh, or Aſh-coloured Spots appeared ſcattered up and down, which oftentimes encreaſed very faſt, and ſoon covered one, or both the Tonſils, Uvula, *&c:* theſe in Event proved the *Sloughs* of ſuperficial Ulcers (which ſometimes however eat very deep into the Parts). The Tongue at this Time, though only white and moiſt at the Top, was very foul at the Root, and covered with a thick yellowiſh, or brown Coat.—The Breath alſo now began to be very nauſeous, which offenſive Smell encreaſed hourly, and in ſome became at length intolera-

ble, and that too ſometimes even to the Patients themſelves.

The ſecond, or third Day, every Symptom became much more aggravated, and the Fever much more conſiderable, and thoſe, that had ſtruggled with it tolerably well for thirty or forty Hours, were forced to ſubmit. —— The Reſtleſſneſs and Anxiety greatly encreaſed, as well as the Difficulty in Swallowing. —The Head was very giddy, pained, and loaded; there was generally more or leſs of a Delirium, ſometimes a Pervigilium and perpetual Phrenzy, tho' others lay very ſtupid, but often ſtarting and muttering to themſelves. —The Skin was very hot, dry and rough; there was very rarely any Diſpoſition to ſweat. The Urine pale, thin, crude, often yellowiſh, and turbid. Sometimes a Vomiting was urgent, and ſometimes a very great Looſneſs, in Children particu-

larly. The Sloughs were now much enlarged, and of a darker Colour, and the ſurrounding Parts tended much more to a livid Hue.——The Breathing became much more difficult, with a Kind of a *rattling Stertor*, as if the Patient was actually ſtrangling, the Voice being exceeding hoarſe and hollow, exactly reſembling that from *venereal Ulcers in the Fauces*; this Noiſe in Speaking and Breathing was ſo peculiar, that any Perſon in the leaſt converſant with the Diſeaſe might eaſily know it by this odd Noiſe; from whence indeed the *Spaniſh Phyſicians* gave it the Name of *Garotillo*, expreſſing the Noiſe ſuch make as are ſtrangling with a Rope.——I never obſerved in one of them the ſhrill, barking Noiſe, that we frequently hear in inflammatory Squinzies. The Breath of all the Diſeaſed was very nauſeous, of ſome inſufferably

ſufferably fœtid, eſpecially in the Advance of the Diſtemper to a Criſis; and many about the fourth or fifth Day ſpit off a vaſt Quantity of ſtinking, purulent Mucus, tinged ſometimes with Blood, and ſometimes the Matter was quite livid, and of an abominable Smell. The Noſtrils likewiſe in many were greatly inflamed and excoriated, continually dripping down a moſt ſharp *Ichor*, or *ſanious Matter*, ſo exceſſively acrid, that it not only corroded the Lips, Cheeks, and Hands of the Children, that laboured under the Diſeaſe, but even the Fingers and Arms of the very Nurſes, that attended them: As this Ulceration of the Noſtrils came on, it commonly cauſed an almoſt inceſſant Sneezing in the Children, but few Adults were affected with it, at leaſt to any conſiderable Degree. It was ſurprizing what Quantities of Matter

ſome Children diſcharged this Way, which they would often rub on their Face, Hands and Arms, and bliſter them all over. —— A ſudden Stoppage of this Rheum from the Mouth and Noſtrils actually choaked ſeveral Children; and ſome ſwallowed ſuch Quantities of it, as occaſioned Excoriations of the Inteſtines, violent Gripings, Dyſentery, *&c*; nay, even Excoriations of the Anus and Buttocks. —Not only the Noſtrils, Fauces, *&c.* were greatly affected by this extreamly ſharp Matter, but the Wind-pipe itſelf was ſometimes much corroded by it, and Pieces of its internal Membrane were ſpit up, with much Blood and Corruption, and the Patients lingered on for a conſiderable Time, and at length died tabid; tho' there were more frequent Inſtances of its falling more ſuddenly and violently on the

the Lungs, and killing in a peripneumonic Manner.

I was aſtoniſhed ſometimes to ſee ſeveral ſwallow with tolerable Eaſe, though the Tumour of the Tonſils and Throat, the Quantity of thick Mucus, and the rattling Noiſe in breathing, were very terrible; which I think pretty clearly ſhews, that this malignant Squinzey was more from the Acrimony and Abundance of the Humours than the Violence of the Inflammation.

Moſt commonly the *Angina* came on before the *Exanthemata*, but many times the cuticular Eruption appeared before the Sore-Throat, and was ſometimes very conſiderable, though there was little, or no Pain in the Fauces; on the contrary, a very ſevere Angina ſeized ſome Patients, that had no Manner of Eruption, and yet, even in theſe Caſes, a very great Itching and Deſquamation

tion of the Skin ſometimes enſued, but this was chiefly in grown Perſons, very rarely in Children.——In general, however, a very conſiderable *Efflorescence* broke out on the Surface of the Body, particularly in Children, and it moſt commonly happened the ſecond, third, or fourth Day; ſometimes it was partial, ſometimes it covered almoſt the whole Body, tho' very ſeldom on the Face: Sometimes it was of an *Eryſipelatous* Kind, ſometimes more *puſtular*; the Puſtules were frequently very eminent, and of a deep, fiery, red Colour, particularly on the Breaſt and Arms, but oftentimes they were very ſmall, and might be better felt than ſeen, and gave a very odd Kind of Roughneſs to the Skin. The Colour of the Efflorescence was commonly of a Crimſon Hue, or as if the Skin had been ſmeared over with *Juice of Raſberries*, and this even to

the

the Fingers Ends; and the Skin appeared inflamed and ſwoln as it were, the Arms, Hands and Fingers were often evidently ſo, and very ſtiff, and ſomewhat painful. — This Crimſon Colour of the Skin ſeemed indeed peculiar to this Diſeaſe.——Though the Eruption ſeldom failed of giving ſome manifeſt Relief to the Patient, as to Anxiety, Sickneſs at Stomach, Vomiting, Purging, *&c.* yet I obſerved an univerſal, fiery Eruption on ſome Perſons, without the leaſt Abatement of the Symptoms, nay, almoſt every Symptom ſeemed more aggravated, particularly the Fever, Load at Breaſt, Anxiety, Delirium; and I knew more than one, or two Patients die in the moſt raging Phrenzy, covered with the moſt univerſal, fiery Raſh, I ever ſaw: So that, as in the highly confluent Small-pox, it ſeemed only to denote

note the *Quantity of the Diſeaſe*, as I may term it.

I had under my Care a young Gentleman, about twelve Years of Age, whoſe Tongue, Fauces, and Tonſils were as black as Ink, and he ſwallowed with extream Difficulty; he continually ſpit off immenſe Quantities of a black, ſanious, and very fœtid Matter for at leaſt eight or ten Days — about the ſeventh Day, his Fever being ſomewhat abated, he fell into a bloody Dyſentery, tho' the bloody, ſanious, fœtid Expectoration ſtill continued with a moſt violent Cough. —— He at length indeed got over it, to the very great Surprize of every one that ſaw him.——Now in this Patient, as ſevere and univerſal a *Raſh*, broke out upon him the ſecond and third Day, as I ever met with, and the Itching of his Skin was ſo intolerable, that he tore it all over his Body in a moſt

ſhocking

ſhocking Manner; yet this very great and timely Eruption very little relieved his Fever and Phrenzy, or prevented the other dreadful Symptoms mentioned.

An early and kindly Eruption, however, was moſt commonly a very good Omen, and, when ſucceeded by a very copious Deſquamation of the Cuticle, one of the moſt favourable Symptoms that occurred; but when the Eruption turned of a duſky or lived Colour, or prematurely or ſuddenly receded, every Symptom grew worſe, and the utmoſt Danger impended, eſpecially if purple, or black, Spots appeared up and down, as ſometimes happened; the Urine grew limpid, and Convulſions came on, or a fatal Suffocation ſoon cloſed the Tragedy.

The Diſeaſe was generally at the Height about the *fifth* or *ſixth* Day in young Perſons, in the elder not ſo

ſoon,

ſoon, and the *Criſis* many times was not till the *eleventh* or *twelfth*, and then very imperfect: Some Adults however were carried off in two or three Days, the Diſtemper either falling on the Lungs, and killing in a peripneumonic Manner, or on the Brain, and the Patient either died raving, or comatoſe.—In ſome the Diſeaſe brought on a very troubleſome Cough, purulent Expectoration, Hæmoptoë and Hectic, in which they lingered on for ſeveral Weeks, and then died tabid.

If a gentle eaſy Sweat came on the third or fourth Day, if the Pulſe became more ſlow, firm, and equal; if the Sloughs of the Fauces caſt off in a kindly Manner, and appeared at the Bottom tolerably clean and florid; if the Breathing was more ſoft and free, and ſome Degree of Vigour and Quickneſs returned in the Eyes, all was well, and a ſalu-

tary

tary Criſis followed ſoon by a Continuance of the Sweat, and a turbid, ſubſiding, farinaceous Urine, a plentiful Expectoration, and a very large Deſquamation of the Cuticle.—But if a Rigor came on, and the Exanthemata ſuddenly diſappeared, or turned livid; if the Pulſe grew very ſmall and quick, and the Skin remained hot and parched as it were, the Breathing more difficult, the Eyes dead and glaſſy, the Urine pale and limpid, a Phrenzy or Coma ſucceeded, with a coldiſh, clammy Sweat on the Face, or Extremities, Life was deſpaired of, eſpecially if a *Singultus* and *Choaking*, or *Gulphing* in the Throat attended, with ſudden, liquid, involuntary, livid Stools, intolerably fœtid.——In ſome few Patients I obſerved, ſome Time before the fatal Period, not only the Face bloated, ſallow, ſhining and greaſy as it were, but the whole Neck vaſt-

ly

ly ſwoln, and of a cadaverous Look; and even the whole Body became, in ſome Degree, œdematous, and the Impreſſion of a Finger would remain fixed in a Part, the Skin not riſing again as uſual; an Indication, that the Blood ſtagnated in the Capillaries, and that the Elaſticity of the Fibres was quite loſt.

As there were ſo many different Kinds of Squinzies and eruptive Diſorders, during the Period, in which the malignant ulcerous Sore-Throat raged, the Likeneſs of the Symptoms, at the very Begining of theſe various Diſeaſes, made it not a little difficult, to the younger and leſs experienced Practitioners eſpecially, to know what Methods to purſue at the *Onſet*; particularly as to the common Evacuations; ſeeing it was now certain, from ſufficient Experience, that in what is called the *malignant, ulcerous Sore-Throat*,

Throat, Bleeding and Purging, to any Degree at leaſt, were utterly improper.

Tho' I really think our *Gentlemen in the Medical Way*, that practiſe in this Part of the Kingdom, are in general as careful, capable, and judicious as in moſt Parts of *England*, yet I took ſome Pains with them to make them comprehend the Nature of this ſingular and uncommon Diſtemper, and to diſtinguiſh it aright from ſome other reigning Diſorders, that bore no ſmall Reſemblance to it.——And having deſired them to attend to the ſmall, quick, unequal, fluttering Pulſe at the Attack of this malignant Squinzey, though indeed it was ſometimes full and undoſe, but even then heavy and unequal—to the ſudden great Dejection of Spirits and Strength—perpetual Anxiety, Sighing, and great Oppreſſion on the Præcordia—heavy, dull, wa-

tery, and as it were weeping Eye —pale, crude, thin Urine, tho' often turbid, like Whey——to the whitiſh, but commonly moiſt Tongue, tho' conſiderably furred near the Root— to the ſhining, crimſon Colour of the Fauces, with interſperſed white, or aſh-coloured Spots or Blotches, with a nauſeous and ſometimes very fœtid Breath—to the ſcarlet or crimſon Efflorescence (in ſome eryſipelatous, in others puſtular) on the Hands, Arms, Neck, Breaſt, &c.——Symptoms that attended this Diſeaſe even on the very firſt Days; they diſtinguiſhed better, proceeded with more Caution, and with greater Succeſs. ——I met with too many Inſtances before, of raſh, large Bleeding and Purging in this Diſtemper, nay, ſome were weak enough to tell me the Blood, they had drawn, was very *fine* and *rich*; *florid* truly I found it as *Lamb's Blood*, but ſo ſoft and looſe

looſe that you might cut it with a Feather, giving off little or no *Serum*, but having exactly ſuch an Appearance as when *Spirit of Hartshorn* is poured to the Blood, juſt as it runs from the Vein, which prevents its natural Coagulation.

I will not ſay but that, in ſome plethoric adult Perſons, ſome Blood may be drawn at the very Begining of this Diſeaſe, and I have in ſome few ordered it with Advantage, particularly as to the *anginoſe Symptoms*, and where the Difficulty of Breathing alſo was conſiderable; but I muſt ſay, a Repetition of the Bleeding to any conſiderable Degree is extreamly detrimental, where the firſt Blood eſpecially was of ſuch a looſe and ſoft Texture; for the ſecond or third will be always found a *mere ſanious Gore*, as I have too often noted——nay, ſometimes I have obſerved the firſt Blood drawn covered

with a very *thin, whitiſh*, or *Lead-coloured Skin*, pretty tenacious; but immediately underneath it was a *greeniſh, ſoft Kind of Jelly*, and at Bottom a very looſe, *black Craſſamentum*, ſcarce at all cohering.— This Appearance of the Blood, however, as much forbids further Bleeding as that above deſcribed, and is moſtly obſerved when there is a throbbing Pulſe, and great Heat at the Acceſs of the Diſtemper. —— I profeſs I was myſelf not a little miſtaken in two or three Caſes at the firſt breaking out of this Fever; one of them I took for a true Peripneumony, but the Sore-Throat, Scarlet Eruption, Stench of the Breath, and even Petechiæ very ſoon coming on, too plainly convinced me what was in Truth the Diſeaſe.

I have very often met with this buffy, or ſizy, Appearance of the Blood in the Begining of malignant

Fevers,

Fevers, and yet Blood, drawn two or three Days after from the very ſame Perſons, hath been quite looſe, diſſolved and ſanious as it were.—Too many Inſtances of this very lately occurred to me amongſt the *French Captives here*, who died by *Dozens* of a *contagious*, *peſtilential Fever*, very frequently attended with Petechiæ, and a bloody Dyſentery.—— In this Fever (as well as all others) the *French Surgeons* bled of Courſe every Day, or at leaſt every other Day.——And I ſeveral times ſaw the Blood of ſome of the *Officers* (thus treated) a mere *ſanious Gore* on the third or fourth Bleeding, tho' conſiderably ſizy at the firſt.——And yet ſo prepoſterous was their Practice, that, at the ſame time they were ſo buſy with the *Lancet*, they *gorged their Patients with the ſtrongeſt Bouillon, that Beef, Mutton*, &c. *could make*, and this too tho' they were

in a conſtant Delirium, were covered with black or purple Spots, and had their Tongues as black as Ink, and as dry and rough as a Pumice-ſtone.——I am very certain great Numbers fell a Sacrifice to this abſurd Practice.

This buffy Appearance of the Blood, at the very Begining of contagious, peſtilential Fevers, doth not invalidate what I have ſaid, in my *Eſſay on Fevers*, of the Effect of *contagious Effluvia* on the Blood in ſuch Fevers, but rather confirms it:—for tho' they tend to diſſolve, and actually at length do deſtroy the *Craſis* of the Blood, yet Perſons of a very viſcid, denſe State of Blood, may be ſeized with a contagious, malignant Fever, and the Blood may appear very ſizy and buffy on Bleeding at the very *Attack*, but, notwithſtanding this, the Action of the *contagious Ferment* (if I may be allowed

the

the Expreſſion) will more and more diſſolve the Blood, and at laſt render it a mere *ſanious Putrilage*, and ſo it will appear on ſubſequent Bleedings. —— And therefore, where there is juſt Reaſon to fear a contagious Malignity in a Fever, we ſhould proceed with the utmoſt Caution as to repeated Bleeding, eſpecially as it will be conſtantly found, that the Pulſe, as well as the Strength, ſink vaſtly after the ſecond or third Bleeding, and truly ſometimes very ſurprizingly after the firſt.

But to return to my Subject. —— Whenever I was called to Perſons ſeized with this Malady, at the very Begining, I generally, inſtead of Bleeding, ordered a Clyſter of Milk, Sugar and Salt to be injected to unload the Inteſtines, eſpecially if the Patient was coſtive.—But, when a Purging attends the Attack, a few Grains of *torrified Rhubarb* with *Spe-*

cies è Scordio, Decoct. alb. &c. are proper; and if the Diarrhœa is profuſe, a Spoonful or two of *Decoct. Fracaſtorii Fulleri* may be frequently given, which is, in ſuch Caſes, a very efficacious Medicine.—If Nauſea and Vomiting were urgent, I ordered a gentle *Emetic*, eſpecially for Adults, which was ſo far from aggravating the Pain of the Throat, as might be imagined, that it generally greatly relieved it—nay, in Children it was often neceſſary to make them puke frequently with a little *Oxymel. Scillit. Eſſence of Antimony*, or the like, otherwiſe the vaſt Amaſs of tenacious Mucus would quite choak them.

I then immediately put the Patient on a *ſaline Mixture of Salt of Wormwood*, or *volatile Salt of Hartſhorn*, and *Juice of Lemon* with *Aq. Alexiter. Simpl.* to which was added *Pulv. Contrayerv. C.* with a ſmall

Quantity of *Myrrh* and *Saffron*; or theſe laſt were given in a *Bolus*, with a few Grains of *Nitre*, if the Fever ran pretty high — the Addition alſo of a Grain or two of *Camphire* was very uſeful for the Adult, where the Stomach would bear it; when it would not, I uſed *Julep è Camphor.* or *Acetum Camphoratum* with *Syrup* of *black Currants*, Raſberries, or the like. — The ſecond or third Day, to the ſaline Mixture, or a temperate cordial Julep, I added ſome of my *Tinct. Cort. Peruvian. Alexipharmac.* which, at this Time of the Diſeaſe, I found greatly preferable to the *Bark* in Subſtance; as it much more tends to promote the Eruption of the Exanthemata, and doth not by far ſo much hinder the Coming on of Sweats, which at all Times of this Diſtemper are of the higheſt Service, provided they are gentle, uniform, and univerſal. — Indeed it was with great

great Difficulty the Sick could be brought to ſweat at all, but whenever moderate, equally diffuſed Sweats came on the third, fourth, or fifth Day, or even later, they were critical and falutary, the Urine grew immediately more concocted, and forthwith depoſited a very large Quantity of *Clay-coloured*, or *pale lateritious Sediment*, though before crude, thin, or limpid; and therefore I always endeavoured to promote them by ſoft, eaſy Diaphoretics, and plentiful Dilution with Barley-water, thin Whey, Gruel, Tea, or the like. — I do not remember I had one Patient miſcarry, who fell into ſoft, eaſy, univerſal Sweats, though the Itching, that ſometimes came on with them, was almoſt intolerable, but generally the Sweat ſoon abated the Itching; at leaſt it conſtantly leſſened the Fever; and the Purging (if there was any) immediately ceaſed: the

Tumour

Tumour of the Neck, Parotids, &c. ſubſided greatly alſo on the Appearance of a kindly plentiful Diaphoreſis: The Sweats were commonly very rank and fœtid, and that even in Children.

I commonly gave *Elixir Vitrioli* with the *Tincture* of the *Bark* (except to very young Children) which is an excellent *anti-putreſcent Alexipharmac*; and I frequently ordered the *Elixir* to be taken out of an *Infuſion of a roaſted Seville-orange* in *Claret*, or *red Port-wine and Water*, which is a very pleaſant and not an ineffectual Compoſition.

There was an abſolute Neceſſity of waſhing out the Mouth and Fauces very frequently—the *Gargle*, I commonly ordered, was a *Decoction of Figs*, *red Roſe-leaves*, *Myrrh* and *Honey* in *rough Cyder*, and a thin *Mucilage* of *Quince-ſeeds* with Syrup of Raſberries, or black Currants;

and a little *Tincture of Myrrh per ſe*, and *Spirit of Vitriol*, was to be taken by Spoonfuls every now and then, eſpecially after *Gargling*.——And I alſo directed the *Fumes* of *red Roſe-leaves*, *Chamomile-flowers*, *Myrrh*, and *Camphire*, boiled in *Vinegar*, to be drawn in with the Breath very often, as hot as the Patients could well bear it, which gave very great and ſpeedy Relief.

Though the Swelling of the Neck, parotid Glands, *&c.* would ſometimes come on ſo ſudden, great and violent, as to endanger a Suffocation, yet in general I took this external Tumour to be partly critical, and therefore endeavoured to promote it by *acrid Cataplaſms*, *Bliſters*, &c. nay I have ſeveral Times bliſtered the Throat from Ear to Ear with great Succeſs.—Theſe Applications are uſeful in common Squinzeys; much more ſo in this, where the

the Humours were ſo exceeding ſharp and malignant.

As there was frequently a very great Tenſion and Tumour of the Belly, and at the ſame Time alſo ſome Degree of a Suppreſſion of Urine, an *emollient Fotus* with ſome of the *Carminative Seeds*, or a few *Chamomile-flowers* boiled in *Milk* and *Water*, and a Clyſter of the ſame with *Salt* and *Sugar*, were neceſſary to promote the Diſcharge of Stool, Wind and Urine; which gave immediate Eaſe to the Bowels, and withall greatly facilitated the Reſpiration, by giving a more *free Play* to the *Diaphragm.* — Indeed if the Abdomen was very tenſe, and the Patient coſtive, about the fifth, or ſixth Day, I generally gave a *Doſe* of *Rhubarb*, *Manna*, or *lenitive Electuary* — and after that commonly the *Bark* in *Subſtance*; but I never ſo ordered it when the Belly was very tumid and conſti-

conſtipated, nor until ſome Signs of *Coction*, or a begining *Deſquamation* of the *Cuticle* appeared; for I found my *Tincture*, or a *Decoction of the Bark*, anſwer full as well, nay better, as cauſing much leſs Oppreſſion on the Breaſt.—I now alſo uſed a *Kind of Reſin of the Bark*, made with *Spirit of Wine*, which I much prefer to the common Extract, as it ſits much lighter on the Stomach, and keeps much better; and therefore I think is more proper for an *officinal Medicine*.

However improper Purging might be at the Begining of this Diſtemper, gentle, eaſy *Cathartics*, as *Rhubarb*, *Manna*, &c. were neceſſary at the End to carry off the putrid Colluvies of the Inteſtines, which otherwiſe protracted the feveriſh Heats, and occaſioned great Weakneſs, Want of Appetite, tumid Bellies, and great Obſtructions of the Glands; nay

nay I was often obliged to give repeated Doſes of *Calomel* to carry off the Swellings of the parotid and maxillary Glands, which otherwiſe frequently remained a long Time much ſwoln and indurated, and, at length, ſometimes ſuppurated: — Indeed I ſeveral Times found it neceſſary to rub them with a *Mercurial Unguent* before I could diſſolve the Tumours; *Calomel* was alſo further uſeful in deſtroying the *Worms*, with which a vaſt Number were at this Time eſpecially troubled.—But in general after a Purge, or two, the Sick ſoon recovered a keen Appetite, Strength and Spirits: Many however required frequent Purging, a Continuance of the *Bark*, *Æthiops mineral*, &c. for a conſiderable Time, and then a Courſe of Aſſes-milk, and an open Country-Air to prevent a waſting Hectic; of which ſome died eight,

eight, or ten, Weeks, after the Diſeaſe firſt ſeized them.

This was undoubtedly a *Fever* of the *malignant, peſtilential Kind*, in which the Blood became highly acrimonious, diſſolved, and putreſcent. That it was very greatly contagious no one doubts, as it very often infected whole Families, eſpecially the younger Perſons. —— And that this Contagion generated a very great Degree of Acrimony in the Blood is moſt evident from the Hiſtory of the Diſeaſe. —— I have elſewhere noted that Contagion acts in the Blood as Acrimony: Perhaps the *contagious Miaſmata* are only the highly exalted *Salino-ſulphureous* Particles and Vapours that exhale from the diſeaſed infecting Body.— It is well known the Stench of putrid Carcaſſes, gangrened Limbs, the polluted, ſtinking Air of Jails, *&c.* deſtroy the *Craſis* of the Blood, and bring on malignant,

nant, peſtilential Fevers; juſt as the putrid Sanies of a gangrened Limb, abſorbed into the Blood, brings on a Fever of the ſame Kind.——It is certain the *peſtilential Effluvia* in the true Plague bring on the moſt healthy, in a very few Hours, a putrid Diſſolution and gangrenous Diſpoſition of the Blood—and truly this malignant Sore-Throat was in ſome Caſes found very little inferior to it in Virulence, not only the Fauces, but the Lungs, Inteſtines, *&c.* haing appeared gangrenous on Diſſections, and the whole Maſs of Blood turned into a putrid Gore.—— That an exceeding ſmall Quantity of morbid Matter will infect the whole Maſs of Blood is moſt certain from the Experiment of inoculating the Small-pox, in which it is found, that very much leſs than a Grain of the variolous Matter is fully ſufficient to bring on that Diſtemper; nor is that ſur-

prizing when we too well know what dreadful Effects ariſe from the minuteſt Quantity imaginable of the Virus of a Viper, or mad Dog.

Though this malignant ulcerous Squinzey ſeemed to be a *Diſeaſe ſui Generis*, yet it certainly had a very great Reſemblance of the *Febris anginoſa*, which I formerly deſcribed in my *firſt Volume de Aëre & Morbis Epidemicis*; and it is pretty remarkable, that ſuch a Kind of Fever now alſo greatly prevailed up and down this Part of the Country; but indeed the anginoſe Fever had very much more of an inflammatory Nature than the malignant Sore-Throat now treated of, and the Blood was commonly found much more denſe and viſcid in the former than in the latter, and of Courſe would much better admit of Bleeding.——But in Truth it may be in this, as in many other epidemic Diſorders, particularly

larly the Small-pox, Meaſles, Scarlet Fever, *&c.*— the general Diſeaſe is greatly diverſified by the particular Conſtitution of the Patients.—Thus the variolous Contagion in one of ſtrong elaſtic Fibres, and a very viſcid denſe Blood, brings on a very high inflammatory Fever,—in another of weak, lax Fibres, and a looſe diſſolved Blood, a low, putrid, nervous Fever, not ſufficient to protrude the Puſtules in a kindly Manner, much leſs to bring them to a laudable Maturation.——In a Word, the high inflammatory Small-pox differ as much, or more, from the low malignant Kind, as the *Febris anginoſa* from the *peſtilential ulcerous Sore-Throat*. — How greatly doth the Scarlet Fever, deſcribed by *Morton*, differ from that mentioned by *Sydenham?* — And indeed, although the ſame ſpecific Contagion always produces the ſame ſpecific Diſeaſe,

yet it greatly differs in different Perſons, and is to be treated accordingly. — There were certainly ſome of theſe ulcerous Sore-Throats with a pretty ſmart Fever, that bore Bleeding at the Begining with Advantage, and a much cooler Regimen was neceſſary in ſome than in others, — nay I was obliged in ſeveral Caſes to give Nitre with the Diaphoretics. ——But I muſt confeſs, in general, much warmer Medicines were neceſſary in this than in moſt other Fevers; and that too ſometimes when the Heat was very conſiderable, otherwiſe the Pulſe would ſink ſurprizingly, and an aſtoniſhing Anxiety, and Oppreſſion, immediately ſucceeded. —— I have really been obliged to give ſuch warm *Alexipharmacs* in this Diſtemper (and that too many Times to very young Perſons) as nothing but repeated Experience could have induced me to

order; as *Saffron*, *Camphire*, *Pulv. Contrayerv. Confect. Cardiac. Theriac. Andromach.* warm Cyder, mulled Wine and Water, *Tinct. Cortic. Alexipharmac.* &c. and this with a Succeſs that was well known, and juſtified the Practice.

The Word *Fever*, as promiſcuouſly uſed in the Practice of Phyſic, is not a little vague and undetermined.— There are ſome Diſorders, that paſs under that general Name, which are beſt cured even by raiſing the Fever, to inſtance only in ſome Quartan Agues and low, nervous Fevers.—And the malignant Squinzey, here deſcribed, is another Species of Fever, which evidently proves that all acute Diſeaſes are not to be treated merely with Evacuations, and cooling Medicines — proper Dilution is unqueſtionably uſeful in all Fevers, but certainly ſome require more than *Barley-water* and *Limonade.*

ade.—But I have already ſaid ſeveral Things on this Head in my *Eſſay on Fevers*; and ſhall at preſent only add a Word or two on the Uſe of *volatile alcalious Salts* in Fevers of the putrid peſtilential, or petechial Kind; in which I fear they are too often very improperly adminiſtered.

And here I muſt obſerve, that, in all Fevers of this Nature, the Blood is always found too much broken and diſſolved, and at length becomes highly acrimonious, and as it were ſanious and putrid. Whatever therefore tends to promote the Acrimony and Diſſolution of the Blood muſt be very apt to bring on ſuch Fevers, and encreaſe their Malignity, when they happen; but volatile alcalious Salts do both in an eminent Degree; for though they may retard the Putrefaction of the Fleſh of Animals, and even in ſome Meaſure of the Blood, out of the

Body

Body (and ſo will *Arſenic*, or *Sublimate-corroſive*) yet mixed with the Blood, whilſt actually under the Power of Circulation and the *Vis Vitæ*, they certainly haſten its Diſſolution, and conſequent Putrefaction; even mixed with the Blood out of the Body, or rather as it runs from the Vein, they quite deſtroy the Texture of the Blood-globules, nearly in the ſame Manner as the Poiſon of a Viper by diſſolving the *Copula*, or Cohæſion of the component Particles; and the Blood of the moſt Robuſt (nay even the moſt buffy Blood of Horſes, as I have often tried) thus managed never concretes, as uſual, into a ſolid *Craſſamentum*, and throws off its *Serum*, but remains ever after a looſe, diſſolved Gore, or Sanies.—Now let me farther obſerve, that when theſe volatile alcalious Salts (or Spirits) are taken in large Quantities, and fre-

quently, even by Perſons in Health, they are well known to bring on feveriſh Heats, Hæmorrhages, ſpongy bleeding Gums, ſtinking Breath, rank Urine, *&c.* Symptoms that ſufficiently indicate a begining Diſſolution, and Putridity of the Blood.

Moreover theſe broken, diſſolved Blood-globules are very apt to enter into the ſerous and lymphatic Arteries, and there, not finding a free Paſſage through their Ramifications, ſtagnate and corrupt, and at length even corrode theſe exceeding tender Veſſels, particularly when ſaturated with acrimonious Salts, which at the ſame Time alſo greatly irritate theſe very minute Canals, encreaſe the Heat, and ſo cauſe a more ſpeedy Corruption both of the Humours and Veſſels; and when the putrid *Lymph* and *Serum* is abſorbed into the Maſs of Blood, it greatly haſtens the general Corruption.

Vola-

Volatile alcalious Salts, even applied externally to the Skin, very ſpeedily corrode and ulcerate, and it is certainly Fact, that given internally they heat vaſtly more, Quantity for Quantity, than the warmeſt *vegetable Alexipharmacks.* —— And that, I think, not ſo much by encreaſing the projectile Force, and Circulation, of the Blood, as by cauſing an inteſtine Motion and Effervescence in it; for, by the moſt accurate Experiments, it is found that Solutions of the volatile alcaline Salts weaken the Tone of the Fibres, and Power of the Veſſels, and conſequently the *Momentum of the Blood* in the regular Courſe of Circulation. ——And we eventually find, that, when the Blood abounds with very acrid Salts, the Pulſe becomes weak, ſmall, quick and fluttering, as in the highly ſcorbutic, and that corrupt, acrimonious State of Blood, which brings

brings on the putrid Fever, antecedent to ſome Mortifications *ab internâ Cauſâ*, as they call it; in both which the Powers of Nature ſink greatly, and particularly the Strength of the arterial Vibrations, tho' they may encreaſe in Quickneſs, to compenſate for the Want of that natural Vigour, and Fulneſs, which is obſerved in a free and firm Pulſation of an Artery duly filled with Blood, and properly actuated.—The extraordinary Bigneſs and Flaccidity of the Heart, that is commonly noted in ſcorbutic and peſtilential Caſes, are owing to the Weakneſs and great Relaxation of its muſcular Fibres.—That peculiar Kind of biting Heat, that we commonly feel on the Skin of Perſons labouring under putrid, malignant Fevers, ſeems to ariſe from the Abundance of acrid Salts and Sulphurs in the Blood, and its inteſtine Motion, and not from its increaſed

creaſed projectile Force; for, on firſt touching the Skin, the Heat ſeems very little, if at all, above the natural, but, by continuing the Finger a longer Time on it, you are ſenſible of a diſagreeable Scalding in it, which Senſation even remains in the Finger for ſome ſmall Time after you have quite removed it from the ſick Perſon: This *Doctor Pringle* hath judiciouſly noted in his excellent *Treatiſe on the Diſeaſes of the Army*; and *Galen*, as he candidly obſerves, long before him.——This *Monſieur Queſnay* calls *la Chaleur d'Acrimonie*, and very juſtly diſtinguiſhes it from *la Chaleur d'Inflammation*.—The Senſation, in Truth, is as different as touching a very hot Piece of dry Wood, and dipping your Finger into tepid Spirit of Hartſhorn. —And I think this Obſervation evidently proves the Abundance of acrimonious Salts thrown off by Per-

ſpiration in theſe very putrid Fevers. That peculiar burning Heat alſo, which the Sick often feel within, in ſuch Diſeaſes, tho' the external Parts of the Body are actually cold, probably ariſes from the ſame Cauſe.—And I cannot but think the Heat, obſervable in Fevers, preceding and attending Mortifications *ab internâ Cauſâ*, is generated by the Acrimony and inteſtine Motion of the Humours; not certainly from a rapid projectile Motion, for the Pulſe is then always found weak and ſmall, tho' quick. The ſurprizingly ſpeedy and great Stench, Swelling, and ſanious Hæmorrhages from all the Outlets of the Bodies of ſuch as die in putrid, malignant Fevers, are Arguments of the great inteſtine Motion, Rarefaction, and Acrimony of the Humours.—This was the Caſe commonly of thoſe that died of the malignant, anginoſe Fever above deſcribed.

I have

I have known the whole Body ſwell vaſtly, even to the Ends of the Fingers and Toes, with a cadaverous Lividity, tho' almoſt quite cold, and an intolerable Stench even before the Perſon was actually dead, Blood iſſuing, at the ſame Time, from the Ears, Noſe, Mouth, and Guts; and this too where the Pulſe had been very weak and ſmall, tho' exceeding quick, from the very Begining.—— Was not this, from much Air, generated in the Blood by the inteſtine Motion, Heat, and Putridity, which are well known to generate Air? Is not the Emphyſema, obſervable in ſome Sphacelations, from the ſame Cauſe?

But to proceed, if we conſider the Generation and Nature of animal Salts, perhaps we ſhall ſee a little further into this Matter.—The ſtrongeſt vegetable Acids, we take in with our Food, are by the *Vis Vitæ* ſoon

ſoon changed into a *neutral*, or a Kind of *ammoniacal Salts*, and by being longer and longer expoſed to the Action of the Veſſels, and Heat of the Blood, they more and more approach to an alcaline Nature, and at length would become actually alcaline, were they not diluted, waſhed off, and corrected by aceſcent Drink and Diet.——A Perſon that lives on nothing but mere Water, and Fleſh or Fiſh, without any Thing either acid or aceſcent, ſoon contracts a very great Rankneſs in all his Humours; he grows feveriſh, and at length his Blood runs into a State of Putrefaction. — The Blood of thoſe that die of Famine becomes highly acrimonious, which begets Fever, Frenzy, and ſuch a Degree of Putrefaction, as is utterly deſtructive of the vital Principles. A very melancholy Inſtance of which I once met with in a poor Gentleman, who obſti-

obſtinately ſtarved himſelf to Death, and would not, for many Days, either by Force or Perſuaſion, ſwallow any Kind of Food, or a Drop of Liquor.—He ſoon grew feveriſh, fluſhed in his Face, and very hot in his Head; his Pulſe was ſmall, but very quick; in four or five Days his Breath became exceedingly offenſive, his Lips dry, black, parched, his Teeth and Mouth foul, black, bloody, his Urine (when it could be ſaved) vaſtly high coloured, and ſtinking, as much as if it had been kept a Month; at length he trembled continually, could not ſtand, much leſs walk, raved and dozed alternately, fell into convulſive Agonies frequently, in which he ſometimes ſweated pretty much about the Head and Breaſt, though his Extremities were quite cold, pale, and ſhrivelled; the Sweat was of a very dark yellow Colour, and of a moſt nauſeous Stench.

It

It is certain alſo, that, if the animal Salts are not duly and conſtantly carried off by Urine, they are highly deſtructive, as in *Iſchuries*, for they continually advance more and more to an alcaline State.—It is not ſo much from an encreaſed Quantity, as the Acrimony of the Juices, that an obſtinate Suppreſſion of Urine becomes fatal; for I have known it very ſoon ſo, where the Patient hath had very large Diſcharges by Sweat and Stool during the whole Time of the Suppreſſion; particularly I remember, many Years ago, a *renal Iſchury* fatal to a corpulent Lady the eleventh Day from the Stoppage, though ſhe was twice bled very largely, and kept purging the whole Time, and conſequently did not die from a Redundance of Humours.——She made not a Drop of Urine from the Time of her Seizure to her Death, though ſhe took very

very largely of *Cantharides* in Subſtance and Tincture, as well as many other Medicines, particularly large Doſes of *Calomel.* Indeed, although I have frequently known *Cantharides* given with very good Effect in *Iſchuries*, yet if they do not anſwer ſpeedily, but are long continued in large Quantities, I fear they co-operate with the acrid Salts, and haſten the Death of the Patient, by bringing on a Delirium and Convulſions, as I have had the Misfortune to ſee more than once.

But to the Point in Hand.—The Formation of volatile alcaline Salts in the Body ſeems not much unlike the Production of them out of the Body. —— Let any Kind of green Plant, even the moſt acid, be preſſed together in a large Heap, it ſoon begins to heat, and gradually grows more and more hot (to ſuch an in-

tenſe Degree at length, if the Quantity be very large, as to break out into an actual Flame) and this Efferveſcence ſoon turns the whole Maſs putrid, and the acid and eſſential Salts of the Plant into volatile Alcalies, which may be diſtilled from the putrid Maſs, and are in no Reſpect eſſentially different from the volatile alcaly Salts raiſed from animal Subſtances; both the one and the other are ultimately the Effects of Heat and Motion on the Salts of Vegetables, and the longer, and ſtronger, theſe are acted upon by the Force and Heat of our Solids and Fluids, ſo much the more are they exalted to an alcaline State, in which they are abſolutely unfit for the common Uſes of Life; nay, exceedingly deſtructive, if they greatly abound, as in very putrid, peſtilential, and petechial Fevers they unqueſtion-

queſtionably do; and therefore, I think, in ſuch Caſes, the Exhibition of volatile alcalious Salts to the Sick is adding Fewel to the Fire, for they certainly diſſolve or break the Globules of the Blood, and thence more ſpeedily bring on a general Putrefaction.—Theſe Salts, even applied externally to the Skin, ſoon excite a gangrænous Ulcer; and, when the Blood is largely ſtocked with them, it becomes a Kind of fiery Lixivium, which is greatly deſtructive of the *nervous Fibrillæ*, and *ultima Vaſcula*.—And this indeed would be more certainly, frequently, and ſpeedily the Caſe than it is, if the plentiful Uſe of Acids, Diluents, and ſoft mucilaginous Things, in Drink and Diet, did not prevent it, by waſhing off and correcting them; as we ſee Juice of Lemon and Vinegar quite take off their Acrimony;

indeed thus managed they are, in many Diſeaſes, turned into very uſeful Medicines.

Before I conclude, I beg Leave to inſert the following extraordinary Caſe, as it is not altogether foreign to the Purpoſe.

I had lately under my Care a Gentleman of Fortune and Family, who ſo habituated himſelf to the Uſe of vaſt Quantities of the *volatile Salts*, that Ladies commonly ſmell to, that at length he would eat them, in a very aſtoniſhing Manner, as other People eat *ſugared Carraway Seeds*. —A Δριμυφαγεία with a Vengeance! —The Conſequence ſoon was, that he brought on a hectic Fever, vaſt Hæmorrhages from the Inteſtines, Noſe, and Gums, every one of his Teeth dropped out, and he could eat nothing ſolid; he waſted vaſtly in his Fleſh, and his Muſcles became

came as ſoft and flabby as thoſe of a new-born Infant; and broke out all over his Body in Puſtules, which itched moſt intolerably, ſo that he ſcratched himſelf continually, and tore his Skin with his Nails in a very ſhocking Manner; his Urine was always exceſſively high coloured, turbid, and very fœtid.—— He was at laſt, with great Difficulty, perſuaded to leave this pernicious Cuſtom, but he had ſo effectually ruined his Conſtitution, that, though he rubbed on in a very miſerable Manner for ſeveral Months, he died tabid, and in the higheſt Degree of a *Maraſmus*;—and I am perſuaded, he would have died much ſooner, had he not conſtantly drank very freely of the moſt fine and generous Wines, and daily uſed large Quantities of Aſſes-milk, and antiſcorbutic Juices well acidulated with

Juice

Juice of Seville-oranges, Lemons, &c.

But, after all, I am ſo far from thinking the *volatile Alcaly-ſalts* ſhould be ſtruck out of the *Materia Medica*, and condemning their Uſe in all Caſes, that I am very certain they may be given with great Advantage in very many.——But, in Truth, I ſtill except thoſe above-mentioned.

FINIS.

ERRATA.

Page 16, Line 5, for *that* read *the*.—Page 39, Line 24, for *torrified* read *torrefied*.—Page 40, Line 23, for *Alexiter*. read *Alexeter*.